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Sign up

Hashicorp Consul training

2 days (14 hours)

Presentation

Hashicorp Consul is a complete mesh service offering a control plane with service discovery, configuration and segmentation functionalities. Hashicorp Consul has many advantages: you can define multiple datacenters, each with its own key/value datastore. Health checks can be performed more frequently, and traffic between Consul's server and clients is reduced. What's more, the key/value store is highly available and Hashicorp Consul works very well with Docker. Our Hashicorp Consul training course will teach you all the fundamentals of the Consul tool: nodes, services, load balancers, how to configure responsively via the key/value store and how to perform health monitoring. As with all our training courses, this Hashicorp Consul course will feature the latest version of the tool, namely [Hashicorp Consul 1.10](#).

Objectives

- How to install and configure Hashicorp Consul
- Controlling nodes
- Mastering health monitoring
- Control reactive configuration via key/value store

Target audience

- Developers
- Infrastructure engineer
- System administrators
- DevOps

Prerequisites

- Basic terminal skills
- Basic cloud architecture skills

Hashicorp Consul training program

Introducing HashiCorp Consul

- General presentation
- Why use Hashicorp Consul?
- Installation
- Configuration

Control nodes

- Presentation of nodes and services
- Consul-server Node
- Web UI interface
- HTTP API interface
- DNS interface
- CLI RPC interface
- Web, LB Nodes and Consul Agent

Service discovery and health monitoring

- Register a web service
- Health checking
- Launch NGINX
- DNS lookup for randomized internal services
- HTTP API and Failing Services
- Maintenance mode
- Automate Geo-Failover with prepared queries

Load balancers

- Integrating load balancers
- Configuring HAProxy
- Load balancing with NGINX and Consul template
- Load balancing with F5
- Managing faulty services

Reactive configuration with key/value store

- The benefits of the key/value store
- Creating keys and folders in the Web user interface
- Key Value CRUD via CLI
- Reactive and real-time configuration files
- Revolutionizing configuration management
- Blocking queries

Complementary module (+1 day) : Consul Associate exam preparation

Consul architecture

- Tool components
- Configuring for high availability
- A reminder of the different functions

Deploying a datacenter

- The Consul process
- Network configuration
- Configure Consul agent

Optimizing safety

- Backup and restore
- Securing communication agents
- The LCD system
- Encryption

Best practices and methods for obtaining certification

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.